

Application No. 10/623,430  
Amendment dated February 17, 2005  
Reply to Office Action of February 7, 2005

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Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Previously presented) A stabilizer for an archery bow, the stabilizer comprising an elongated member having a near end for attachment to an archery bow and a distal end, the elongated member having a length  $L$ , and a weight attached to the elongated member proximate the distal end, wherein the center of gravity of the elongated member and weight is located within 25 percent of length  $L$  from the distal end of the elongated member, wherein the weight has a dimension  $D$  in a direction normal to the length  $L$  of the elongated member which is at least three times a thickness  $T$  of the weight in the same direction as the length of the elongated member.

2. (Original) The stabilizer of claim 1, wherein a first mass  $M1$ , of the weight is at least 1.2 times a second mass  $M2$  of the elongated member.

3. (Original) The stabilizer of claim 1, wherein the weight is disk-shaped.

4. (Canceled)

5. (Original) The stabilizer of claim 1, wherein the elongated member is a rod.

6. (Original) The stabilizer of claim 1, wherein the elongated member is a hollow rod.

7. (Original) The stabilizer of claim 1, wherein a natural frequency of the first bending mode of the elongated member and weight is at least 20 Hz.

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8. (Previously presented) The stabilizer of claim 38, wherein a natural frequency of the first bending mode of the elongated member and weight is at least 40 Hz.

9. (Currently amended) An archery bow having at least one front stabilizer, the front stabilizer having a near end fixed to the bow, a distal free end, and a length  $L$ , the center of gravity of the front stabilizer being located within a distance  $D$  of 25 percent of the length  $L$  of the distal end of the stabilizer, wherein the distance  $D$  is within 15 percent of the length  $L$  of the distal end of the stabilizer.

10. (Canceled)

11. (Original) The archery bow of claim 9, wherein the stabilizer comprises an elongated member and a weight disposed on the elongated member proximate the distal end thereof.

12. (Original) The archery bow of the claim 11, wherein the elongated member is a rod and the weight has a disk shape.

13. (Original) The archery bow of claim 11, wherein the weight has a dimension  $D$  in a direction normal to a length  $L$  of the elongated member which is at least three times a thickness  $T$  of the weight in the same direction as the length of the elongated member.

14. (Original) The archery bow of claim 11, wherein a first mass  $M1$ , of the weight is at least 1.2 times a second mass  $M2$  of the elongated member.

15. (Original) The archery bow of claim 11, wherein the elongated member is a rod.

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16. (Original) The archery bow of claim 11, wherein the elongated member is a hollow rod.
17. (Original) The archery bow of claim 9, wherein a natural frequency of the first bending mode of the stabilizer is at least 20 Hz.
18. (Previously Presented) The archery bow of claim 41, where in a natural frequency of the first bending mode of the stabilizer is at least 40 Hz.
19. (Canceled)
20. (Canceled)
21. (Previously Presented) The stabilizer of claim 30, wherein the elongated member is a rod.
22. (Previously Presented) The stabilizer of claim 30, wherein the elongated member is a hollow rod.
23. (Previously Presented) The stabilizer of claim 30, wherein the weight is disk shaped.
24. (Previously Presented) The stabilizer of claim 30, wherein a first mass  $M_1$  of the weight is at least 1.2 times a second mass  $M_2$  of the elongated member.
25. (Previously Presented) The archery bow of claim 34, wherein the front stabilizer has a natural frequency of the first bending mode of at least 20 Hz.
26. (Original) The archery bow of claim 25, wherein the natural frequency of the first bending mode is at least 40 Hz.

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27. (Canceled)

28. (Canceled)

29. (Canceled)

Claims 30-37 (Canceled)

38. (Previously Presented) A bow stabilizer for an archery bow, the stabilizer comprising an elongated member having a near end for attachment to an archery bow and a distal end, the elongated member having a length  $L$ , and a weight attached to the elongated member proximate the distal end, wherein the center of gravity of the elongated member and weight is located within 25 percent of length  $L$  from the distal end of the elongated member and wherein a natural frequency of the first bending mode of the elongated member and weight is at least 20 Hz.

39. (Previously Presented) An archery bow having at least one front stabilizer, the front stabilizer having a near end fixed to the bow, a distal free end, and a length  $L$ , the center of gravity of the front stabilizer being located within a distance  $D$  of 25 percent of the length  $L$  of the distal end of the stabilizer, wherein the stabilizer comprises an elongated member and a weight disposed on the elongated member proximate the distal end thereof, and wherein the weight has a dimension  $D$  in a direction normal to a length  $L$  of the elongated member which is at least three times a thickness  $T$  of the weight in the same direction as the length of the elongated member.

40. (Previously Presented) An archery bow having at least one front stabilizer, the front stabilizer having a near end fixed to the bow, a distal free end, and a length  $L$ , the center of gravity of the front stabilizer being located within a distance  $D$  of 25 percent of the length  $L$  of the distal end of the stabilizer, wherein the stabilizer comprises an elongated member and a weight disposed on the elongated member

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proximate the distal end thereof, and wherein a first mass M1, of the weight is at least 1-24 times a second mass M2 of the elongated member.

41. (Previously Presented) An archery bow having at least one front stabilizer, the front stabilizer having a near end fixed to the bow, a distal free end, and a length L, the center of gravity of the front stabilizer being located within a distance D of 25 percent of the length L of the distal end of the stabilizer, wherein a natural frequency of the first bending mode of the stabilizer is at least 20 Hz.